

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 17796 PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 03/ 04303	International filing date (day/month/year) 13/02/2003	(Earliest) Priority Date (day/month/year) 14/02/2002
Applicant M/A-COM, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/04303

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L23/31 H05K3/34 H01L23/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 578 796 A (BHATT ASHWINKUMAR C ET AL) 26 November 1996 (1996-11-26) column 1, line 10 -column 2, line 62 column 3, line 24 - line 62 column 7, line 4 - line 10 column 7, line 66 -column 8, line 31 figure 8	1-3,5-7, 11-13, 15, 17-21, 23-25
A	--- -/--	10,28

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date at another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

Z document member of the same patent family

Date of the actual completion of the international search

1 August 2003

Date of mailing of the international search report

07/08/2003

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 03/04303

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 772 234 A (GORE & ASS) 7 May 1997 (1997-05-07)	1-4, 6, 8, 11-14, 16, 19-22, 24, 26
Y	column 3, line 54 - column 4, line 54 column 6, line 18 - column 7, line 27 column 8, line 7 - line 58 column 9, line 53 - column 11, line 11 column 12, line 39 - line 47 column 15, line 17-21	9, 27
A	----	5, 10, 17, 18, 23, 28
X	US 2001/016370 A1 (HO CHUNG WEN) 23 August 2001 (2001-08-23)	1-3, 6, 7, 10-13, 15, 19-21, 24, 25, 28
A	abstract paragraphs '0022!', '0026!', '0027!', '0029!' - '0032!', '0038!', '0040!', '0044!', '0045!', '0054!', '0066!', '0079!' figure 1	5, 17, 18, 23
X	US 6 038 137 A (BHATT ASHWINKUMAR CHINUPRASAD ET AL) 14 March 2000 (2000-03-14)	1-3, 6, 7, 11-13, 15, 19-21, 24, 25
A	column 1, line 61 - column 3, line 6 column 4, line 37 - line 50 column 5, line 41 - line 67 column 6, line 23 - line 40 column 7, line 36 - line 51 figures 1, 2, 5	5, 10, 17, 18, 23, 28
Y	WO 99 44959 A (PPG IND OHIO INC) 10 September 1999 (1999-09-10) abstract	9, 27
A	claims 46, 48, 49	1, 8, 11, 16-19, 26
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International Application No.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 228 468 B1 (VODRAHALLI NAGESH K) 8 May 2001 (2001-05-08) cited in the application	1,2, 10-12, 17,19, 20,28
A	figure 3 column 3, line 66 -column 4, line 52 -----	3,5,6, 13,18, 21,23,24

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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		CN 1332704 T	23-01-2002
		EP 1124770 A1	22-08-2001
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